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COMPOUNDS USEFUL FOR INHIBITING CHK1

CROSS REFERENCE TO RELATED APPLICATIONS

5 This application claims the benefit of
U.S. provisional application Serial No. 60/273,124,
filed March 2, 2001.

TECHNICAL FIELD OF THE INVENTION

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The present invention relates to compounds
useful for inhibiting enzymes that maintain and re-
pair the integrity of genetic material. More par-
ticularly, the present invention relates to a series
15 of aryl- and heteroaryl-substituted urea compounds,
methods of making the compounds, and their use as
therapeutic agents, for example, in treating cancer
and other diseases characterized by defects in de-
oxyribonucleic acid (DNA) replication, chromosome
20 segregation, or cell division.

BACKGROUND OF THE INVENTION

25 An important and significant goal in
healthcare is to discover and make available safer
and more effective drugs for the treatment of
cancer. Most chemotherapeutic agents act by dis-
rupting DNA metabolism, DNA synthesis, DNA tran-
scription, or microtubule spindle function, or by
30 perturbing chromosomal structural integrity by
introducing DNA lesions. These processes affect
both normal and tumor cells. The maintenance of DNA
integrity is essential to cell viability in normal
cells, therefore, anticancer drugs have the lowest
35 therapeutic index of any drug class.